

The right ovarium had a small torn orifice upon the most prominent part of its external surface, which led to a cavity filled up with coagulated blood, and surrounded by a yellowish organized structure. The inner surface of the uterus was covered with coagulable lymph, among the fibres of which, near the cervix, was the ovum. It was oval-shape; and though at first partly semitransparent, became opaque from the action of the spirit. It was immediately taken to Mr. Bauer, who compared it to the egg of an insect, and succeeded in pointing out the effects of impregnation in two projecting points, the rudiments of the heart and brain.

The corpus luteum has always been regarded as the effect of impregnation,—a notion which the present case has enabled the author to disprove, by showing it to be a glandular structure in which the ovum is formed; and after its expulsion the blood which fills the cavity is absorbed, leaving a small empty space as the former situation of the ovum.

Sir Everard Home examined several ovaria, where it was impossible that impregnation should ever have taken place, and found small cavities round the edge of the ovarium, showing that during the state of virginity ova had passed out. And it appears, that whenever a female quadruped is in heat, one or more ova pass into the uterus, whether she receives the male or not.

In the drawings belonging to this paper, the changes which take place in the ovarium, for the purpose of forming the ova, are shown, and also the internal surface of the Fallopian tube at the time of the passage of the ovum. The dilatation of this tube at a small distance from the fimbriæ, seems to be both for the reception of the ovum and of the semen; and it is probable that the ovum is retained there for several days, so as to prolong the opportunity of its being impregnated.

The formation of ova in the ovaria, and their appearing in that organ in succession, induces the author to entertain an opinion contrary to that commonly received respecting menstruation, which has been considered as a necessary preparatory step for utero-gestation, whereas the present case shows that such periods are not connected with the formation of the ovum, the process of its leaving the ovarium, or its impregnation. When, however, impregnation does not take place, such a discharge seems necessary for the relief of parts to which there had been so copious a determination of blood.

The paper concludes with Mr. Bauer's account of the appearance of the ovum, and of the drawings which are annexed to the paper.

*Some farther Observations on the Use of the Colchicum autumnale in Gout.* By Sir Everard Home, Bart. V.P.R.S. Read May 8, 1817. [*Phil. Trans.* 1817, p. 262.]

When the infusion of colchicum is kept for some time, it throws down a sediment, in which the purgative qualities of the root appear

principally to reside, while its separation does not seem to diminish the specific effects of the medicine upon gout.

When the bulb of the *Colchicum autumnale*, says the author, is infused in wine, both extractive matter and mucilage are taken up, but a copious deposition takes place in the strained tincture. Several experiments proved that this first deposit is nearly inert; but the clear liquor subsequently forms other depositions, and it is to these that the experiments in this paper relate. The author took half a bottle of *Eau medicinale* containing none of the sediment, and its effects were extremely mild compared with those of the other half containing the sediment.

To ascertain how far this sediment, thus shown to contribute to the violent operation of the medicine upon, was active in curing the gout, Sir Everard made the following experiment. Sixty drops of the clear vinous infusion were given to a man labouring under a severe fit of gout. It produced slight nausea, and operated twice gently upon the bowels. In 19 hours his pulse fell from 115 to 92, and in 48 hours he was well, and continued so for more than three months.

The result of this case satisfied the author that the principle in the colchicum which cures gout is retained in permanent solution, and induced him to believe that the violent effects of the remedy upon the stomach and bowels, must depend upon some distinct substance contained in the sediment.

To ascertain this point several experiments were instituted upon dogs, tending not merely to confirm Sir Everard's opinion upon this head, but likewise satisfactorily to demonstrate the identity of the *Eau medicinale* with the infusion of *Colchicum autumnale*. The experiments were made by Mr. Gatecombe, with the following results. Thirty drops of *Eau medicinale*, with the deposit injected into the jugular vein, produced a purging of nine hours duration. One hundred and sixty drops administered in the same way, killed the dog in six hours, and there were appearances of violent inflammation in the bowels. The same quantity taken by the mouth, produced nearly similar effects. One hundred and sixty drops of the vinous infusion of colchicum, without sediment, produced purging and vomiting, from which the animal recovered. Two hundred drops produced the same effect, but 300 drops produced effects corresponding with those of the 160 of *Eau medicinale*. The dog died in nine hours. Hence it appears that the *Eau medicinale* produces double the effect of the vinous infusion of colchicum. Six grains of the deposit from the vinous infusion, produced vomiting and purging, with blood, which lasted twenty-four hours.

Sir Everard conceives, from these experiments, that the acriminous and highly drastic effect of the *Eau medicinale*, is to be referred to the sediment which it deposits, and notices the analogy which thus exists between it and the juice of the wild cucumber, the sediment of which is known under the name of *Elaterium* as a highly drastic purge, whereas the juice which has deposited this substance is comparatively inert.